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A survey of sued physicians' self-reported reactions to malpractice litigation in Iran

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ABSTRACT

Objective: To illustrate the psychological effect of grievances and negligence litigation on doctors sued by Legal Medicine Organization Complaints Commissions.
Methods: Retrospective survey regarding the views of a large sample of Iranian sued physicians by using a piloted anonymous questionnaire.
Results: The answer rate was 77.5%. Seventy-six per cent of participants encountered monitoring criteria for psychiatric disturbance. Rate of psychological morbidity in between study cluster was much higher than Iranian general population, Iranian non-sued general practitioners, interns and medical students. There was, however, minimal dysfunction of work, public or family life. The survey form to estimate the doctor's realization of lawful risk displayed that doctors yet misconceive medico-legal risk. Doctors being sued or having legal protests against them depict the process as an exceedingly demanding event.
Conclusions: Grievance or legal action is unusual in the daily practice of doctors, but in today's medico-legal domain they face a continuous possible threat. The threat of, or real, legal process can cause psychological, corporeal and behavioral practice changes.

1. Introduction

According to Iran's criminal law, the official body whose expert judgement requires to be taken in claims in negligence is the Legal Medicine Organization (LMO), which is under the control of the Supreme Court. The LMO was established in 1993 and consists of several professional expert committees in different professional groups of medicine. Forensic practitioner members of LMO who are experts in their fields work on a permanent basis and other specialist members work in Universities of Medical Sciences. The decisions of the LMO expert committees are based on medical and legal documents presented in the relevant file. Legal authorities do not have to comply with decisions of the LMO expert committees, although they usually agree with those decisions.[1,2]

In the province of Tehran in Iran, about 1500 doctors are the subject of a written complaint to the Legal Medicine Organization Complaints Commission (LMOCC) each year.[3] These are all grievances which resulted in claims of negligence. The LMOCC is a part of the judiciary and professional regulatory system for holding medical practitioners accountable. The patient and/or his/her family can sue the medical personnel when they do not receive adequate medical treatment or when they think they are injured as a result of a malfunction treatment intervention.[1]

The purpose of this study is to investigate the psychological effect of the LMOCC's complaint process on doctors who work in clinical practice having a therapeutic relationship with patients and their realization of lawful imperil. The recent refers to the comprehension of the legal system as it recounts to errors and adverse patient results. The legal system does not require doctors to practice flawlessly; rather, it requires doctors to have the wisdom and ability similar to other doctors and to act wisely in accordance with the accepted qualities.

An inspection of the literature exhibits that the risk or factual happening of a grievance or lawsuit causes emotional and physical tension. [4–12]. Also, there are possible favorable alterations to medical practice such as intensified screning, development of audit or consumer satisfaction activities, more itemized record keeping and more extensive descriptions to pateints, as well as possible harmful alterations such as prescription of unneeded drugs, redundant increase in frequency of follow up, referral proportions and diagnostic testing, as well as evasion of certain medical care and

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even not seeing certain types of cases.[4–6,8,9,13,14] Other factors altering the doctors' response are the accessibility or absence of professional or personal support systems (and the doctors' readiness to use them) and the medical tradition of 'infallibility', whereby errors in patient care were viewed as a side effect of treatment or nature of disease.[4,12,13,15–18] In Australia, the 'threat of litigation' was side effect of treatment or nature of disease the most severe work-related stressor in a study of 464 randomly selected metropolitan general practitioners.[18,19] In Iran; there had been no published report on psychological effect of complaints and negligence litigation on sued doctors, although it has been acknowledged that some complaints and claims for negligence can cause emotional and physical stress. This paper describes the psychological effect of the LMOCC's complaint process on sued doctors who work in clinical practice having a therapeutic relationship with patients and their perception of legal risk in Tehran, Iran.

2. Materials and methods

The study was conducted within the framework of the Tehran province Legal Medicine Organization, the largest Iran's LMO that serves about 20% of the Iran's population. Physicians who were the subject of a written grievance which resulted in claims of negligence to the LMOCC in the period of March to August 2007 were asked to join in the study. Two weeks after the physicians received written informing of the grievance which resulted in claims in negligence, the research team sent the questionnaire package with reply paid envelope to the study team. Secrecy and namelessness was maintained as the research team had no access to the LMOCC files and the LMOCC had no access to the returned questionnaires. We used a model which was published by Nash et al. in the year 2006.[18] Summary of methodology is showed in Table 1.

2.1. Demographic data

Demographic data obtained comprised age, year of graduation, country of graduation, gender, marital status, insurance coverage, type of clinical practice (general practitioner, specialist and other) and practice arrangement (solo, group, hospital, medical centre and community health).

2.2. Present and past grievances

Participants supplied an inscribed narrative outlining the present grievance and the submitted action by the LMOCC as described in the initial LMOCC correspondence to them, and any prior grievances. Participants rated the gravity of the present grivance. They were also asked if they had talked about the grievance with others and how helpful this had been.

Table 1
Summary of methodology.

Demographic data of respondents
Age
Gender
Year of graduation (mean professional experience)
Country of graduation
Marital status
Insurance coverage
Type of clinical practice (general practitioner, Specialist and other)
Practice arrangement (solo, group, hospital, medical centre and community health)
Current complaints
Past complaints
Perception of legal risk
Psychiatric morbidity
Somatic symptoms
Anxiety and insomnia
Social dysfunction
Depression
Sheehan Disability Scale

2.3. Realization of lawful risk

A questionnaire was created by one of the authors on doctors' inclusive realization of lawful risk.

2.4. Psychiatric morbidity

This was estimated by The General Health Questionnaire-28 (GHQ-28)[20], a sensitive and well-approved supervising tool to detect frequent non-psychotic psychiatric morbidity, thinking out symptoms over the last 2 weeks.[18,21] The General Health Questionnaire is a widely used monitoring instrument. It has four subscales: somatic symptoms, anxiety and insomnia, social dysfunction and depression. The recommended cut-off score to identify cases is above four using binary scoring. This has been displayed to have high responsiveness for recognition of possible cases of psychiatric morbidity.[22,23]

This was a descriptive study, thus there was not a control group to measure results against, yet comparison data was derived form other sources studying psychiatric morbidity in Iranian general population, Iranian general practitioners, interns and medical students.[24–26]

2.5. Sheehan Disability Scale

The Sheehan Disability Scale is observed a responsive instrument for self-report of functional impairment in the three fields of work, social life/leisure activities and family life.[27]

2.6. Statistical analysis

All statistical analysis was performed using SPSS version 13.0. Any significance value below $p = 0.05$ was measured to be statistically significant. Validity was reccognized by examining construct validity in the subjective instruments. Construct validity of the realization of lawful risk questionnaire was estimated by the direction and strength to which factors with expectation of both good and poor correlation fulfilled our prediction. Cohen gives the following effect size guidelines for the Spearman (used with skewed data) correlation coefficient: small = 0.10; medium = 0.30 and large = 0.50.[18,28]

3. Results

The study population comprised 497 sued doctors working in clinical practice having a therapeutic relationship with patients and being the subject of a written complaint which resulted in claims of negligence to the LMOCC in the period of March–August 2007. Our study mail-out ($n = 395$) achieved a high response rate (79.5%). Ten doctors wrote angry response and sent back the blank questionnaire. We excluded them and analyzed the 385 remnants. Thus response rate was high and 77.5% (385 of 497) of the study group participated in this study.

3.1. Demographic data

The mean age of respondents was 48.0, with a range of 30.0–71.0 Y/O. Mean year of graduation was 1986 with a range 1953–2004. The country of primary medical degree was Iran (93.8%), with five each (1.3%), from India, Pakistan, Romania, Croatia and two each (0.5%) from Germany and UK. Eighty-three per cent of

Table 2
Demographic data of the study group participated in this study ($n = 385$).

Variable	Male	Female	All	P
Mean age (years)	48.2 ± 13.2	46.1 ± 11.8	47.8 ± 12.8	NS
Mean professional experience (years)	21.0 ± 6.8	20.7 ± 5.7	20.9 ± 6.2	NS
Gender [*N* (%)]	320 (83.1)	65 (16.9)	385 (100.0)	<0.05
Country of primary medical degree [N (%)]				
Iran	296 (76.9)	65 (16.9)	361 (93.8)	<0.05
Other countries	24 (6.2)	0 (0.0)	24 (6.2)	<0.05
Total [*N* (%)]	320 (83.1)	65 (16.9)	385 (100.0)	<0.05
Marital status [N (%)]				
Single	45 (11.7)	9 (2.3)	54 (14.0)	NS
Married	254 (66.0)	54 (14.0)	308 (80.0)	NS
Separated/divorced	21 (5.5)	2 (0.5)	23 (6.0)	<0.05
Insurance coverage				
Yes [*N* (%)]	71 (18.4)	13 (3.4)	84 (21.8)	NS
Type of clinical practice				
General practitioner	28 (7.3)	7 (1.8)	35 (9.1)	NS
Specialist	257 (66.8)	51 (13.2)	308 (80.0)	NS
Dentist	26 (6.7)	5 (1.3)	31 (8.0)	NS
Other	9 (2.3)	2 (0.5)	11(2.9)	NS
Practice arrangement				
Solo	185 (48.1)	38 (9.9)	223 (58.0)	NS
Group	45 (11.7)	9 (2.3)	54 (14.0)	NS
Hospital	71 (18.4)	14 (3.6)	85 (22.0)	NS
Other	19 (4.9)	4 (1.0)	23 (6.0)	NS

the respondents were male. Eighty per cent were married, 6% separated/divorced, and 14% single. Nine per cent of respondents were in general practice or primary care; 17% general surgeons, 13% gynecologists and obstetrics, 8% ENT specialists, 7% orthopedics, 5% ophthalmologists, 5% neurosurgeons, 5% anesthesiologists, 8% internists and their subspecialties, 8% dentists, 3% specialists in training and 12% other specialists. Fifty-eight per cent worked in solo practice, 14% group practice, 22% mainly hospital work and 6% other. Demographic data are showed in Table 2.

3.2. Presence at peer review and educational conference

The mean amount of peer review conference per year presented by the respondents was 4.5. However, there was a skewed distribution with a minimum of 0 (range 0–22) and as such caution is required when explaining these results for a small sample. The mean number of education conferences per year was 8.7 with a median of 6.

3.3. Prior grievances

Two per cent of respondents had five or more prior grievances to the LMOCC, 5% had four prior grievances, 5% had two prior grievances, 18% had one prior grievance and 70% of respondents had no prior grievances. Frequency of prior grievances in the study group participated in this study are showed in Table 3.

3.4. The present grievance

The doctor's sensed severity of the present grievance was: severe or completely severe in 22%, minor or very minor in 40% and insignificant in 38%. The seriousness of the current complaint in view point of the study group is showed in Table 4.

3.5. Talking about the grievance with another

Seventy-six per cent of the sample did talk about the grievance. Most of them found this to be helpful. Fifty-six per cent discussed the grievance with their spouse, 56% with a medical colleague, 18% with a non-medical colleague, 18% with a friend outside work and 16% with another family member.

3.6. The doctor's realization of lawful risk

Ninety-six per cent of respondents thought that all doctors make errors. Seventy-seven per cent thought that insufficient dialogue was a factor in most grievances and 56% stated they were comfortable discussing errors with their co-workers. Seventy per cent thought that an apology does not imply an admission of responsibility. Sixty-five per cent thought that patients were not more likely to sue if told of errors. Thirty-one per cent thought that the law requires them to make perfect decisions and 30% thought that patients were motivated by other doctors. Ten per cent of

Table 3
Frequency of *prior grievances* in the study group participated in this study ($n = 385$).

Variable	Male	Female	All	P
Previous complaints [N (%)]				
No previous complaints	210 (54.6)	59 (15.3)	269 (69.9)	<0.05
One previous complaints	63 (16.4)	6 (1.6)	69 (17.9)	<0.05
Two previous complaints	19 (4.9)	0 (0.0)	19 (4.9)	<0.05
Three previous complaints	0 (0.0)	0 (0.0)	0 (0.0)	NS
Four previous complaints	19 (4.9)	0 (0.0)	19 (4.9)	<0.05
Five or more previous complaints	9 (2.3)	0 (0.0)	9 (2.3)	<0.05
Total [*N* (%)]	320 (83.1)	65 (16.9)	385 (100.0)	<0.05

Table 4
The seriousness of the current complaint in view point of the study group ($n = 385$).

Variable	Male	Female	All	P
The seriousness of the current complaint [N (%)]				
Trivial	133 (34.6)	13 (3.4)	146 (37.9)	<0.05
Minor or very minor	141 (36.6)	13 (3.4)	154 (40.0)	<0.05
Serious or quite serious	46 (11.9)	39 (10.1)	85 (22.1)	<0.05
Total [N (%)]	320 (83.1)	65 (16.9)	385 (100.0)	<0.05

Table 6
The frequency of psychological morbidity in sued doctors using GHQ-28 > 4[a] ($n = 385$).

Variable	Male	Female	All	P
Somatic symptoms [N (%)]	16 (4.2)	12 (3.1)	28 (7.3)	<0.05
Anxiety and insomnia [N (%)]	211 (54.8)	48 (12.4)	259 (67.2)	<0.05
Social dysfunction [N (%)]	3 (0.8)	1 (0.3)	4 (1.1)	NS
Depression [N (%)]	1 (0.3)	1 (0.3)	2 (0.5)	NS
Total [N (%)]	231 (60.0)	62 (16.1)	293 (76.1)	<0.05

[a] GHQ-28: general health questionnaire-28 (using a cut-off >4).

respondents thought that only inexperienced doctors are sued for professional negligence. The doctor's realization of lawful risk is showed in Table 5.

A number of correlations (Spearman) were of attention in our study. There was a significant relationship between number of educational conferences and reduced number of grievances ($r = 0.57$; $p < 0.01$). There was a significant correlation between how the LMOCC is destined to handle the complaint and the doctors noticed severity of grievance ($r = 0.37$; $p < 0.05$) and doctors who felt 'more responsible' were more likely to view the grievance as more serious ($r = 0.50$; $p < 0.01$). Respondents thought that an apology was improbably to increase the risk of legal action ($r = 0.44$; $p < 0.01$), and insufficient dialogue was seen as a major factor in most 'errors' ($r = 0.43$; $p < 0.01$). Doctors who believed medical errors are rare were more likely to show that they felt professional standards should be set exclusively by the medical profession ($r = 0.59$; $p < 0.01$).

3.7. General health questionnaire

The frequency of psychological morbidity in the study group using GHQ-28 is showed in Table 6. Seventy-six per cent of the specimen encountered criteria for psychiatric morbidity (GHQ-28 > 4). Using a higher cut-off to raise specificity (GHQ-28 > 7), 66% of doctors encountered the criteria for psychiatric morbidity. There was a non-significant trend that those who sensed the grievance as critical were more likely to encounter criteria for case of necessity with the GHQ ($p = 0.09$). As shown in Fig. 1; psychological morbidity in female sued physicians is significantly higher than male sued physicians ($p < 0.005$).

3.8. Sheehan Disability Scale

The results exhibit little in the way of functional deterioration of work, social life/leisure or family life.

4. Discussion

4.1. Response rate

The study was directed through a interval of unexampled upheaval in the LMOCC. The response rate of 77.5% is at the top end of the range in comparison with similar studies in the other countries.[4–6,12,13]

4.2. Possible personal risk factors for a grievance

Our demographic results are similar to the New Zealand two surveys of doctors who had complaints against them, of whom 68% were in the 40–60 year age group and male doctors were more likely to receive a complaint than female doctors.[18,29] Our high ratio of male doctors may be due to many factors. As Iranian women must manage their family, a group of female doctors work less hours in professional roles. Also the proportion of female to male doctors in Iran is not equal and number of female doctors is less than male physicians. Although having a better connection, or working in less complicated conditions can reduce the risk of malpractice claims, there is no documented evidence in our finding to establish this idea. Also, why was the rate of complaint lower for foreign-trained doctors when taking into account their ratio of the population? Non-responder bias is a disturb here. Such Issues must be investigated in a larger cohort study.

The role of teaching seems to be significant in which those doctors who accompanied more instructive conferences in our study were less likely to have more than one greivance. Training conferences are not only prominent from a 'teaching' point of view, but also give a time of collegial support. The potential join may also be due to the professional practitioner being more likely to attend teaching conferences.

4.3. Doctors' realization of lawful risk, this grievance and the LMOCC handling of the grievance

There is a stess in the answers regarding connection with 77% of participants believing that insufficient connection was an agent in most grievances yet 35% believing that patients were more likely to sue if told of errors.

Second stress was that many of the grievances were supposed by the doctor to be insignificant or minor. However, of 42% of grievances in this study measured critical enough to justify further consideration by the LMOCC, only in 22% did the doctor consider it serious. This may be found on the realities as noticed by the doctor and really not being serious, or this may be due to the doctor's early answer to the grievance.

Table 5
The doctor's realization of lawful risk ($n = 385$).

Variable	Positive responses			
	Male [N (%)]	Female [N (%)]	All [N (%)]	P
Do all doctors make mistakes?	310 (80.5)	60 (15.6)	370 (96.1)	NS
Is inadequate communication a factor in most complaints?	256 (66.5)	40 (10.4)	296 (76.9)	<0.05
Are you comfortable discussing mistakes with your colleagues?	179 (46.5)	37 (9.6)	216 (56.1)	NS
Does not an apology imply an admission of liability?	218 (56.6)	52 (13.5)	270 (70.1)	<0.05
Do you believe that patients were not more likely to sue if told of mistakes?	198 (51.4)	52 (13.5)	250 (64.9)	<0.05
Do you believe that the law requires you to make perfect decisions?	99 (25.7)	20 (5.2)	119 (30.9)	NS
Do you believe that patients were stimulated and boiled by other doctors?	102 (26.5)	13 (3.4)	115 (29.9)	<0.05
Do you believe that only unprofessional and incompetent doctors are sued for professional negligence?	32 (8.3)	7 (1.8)	39 (10.1)	NS

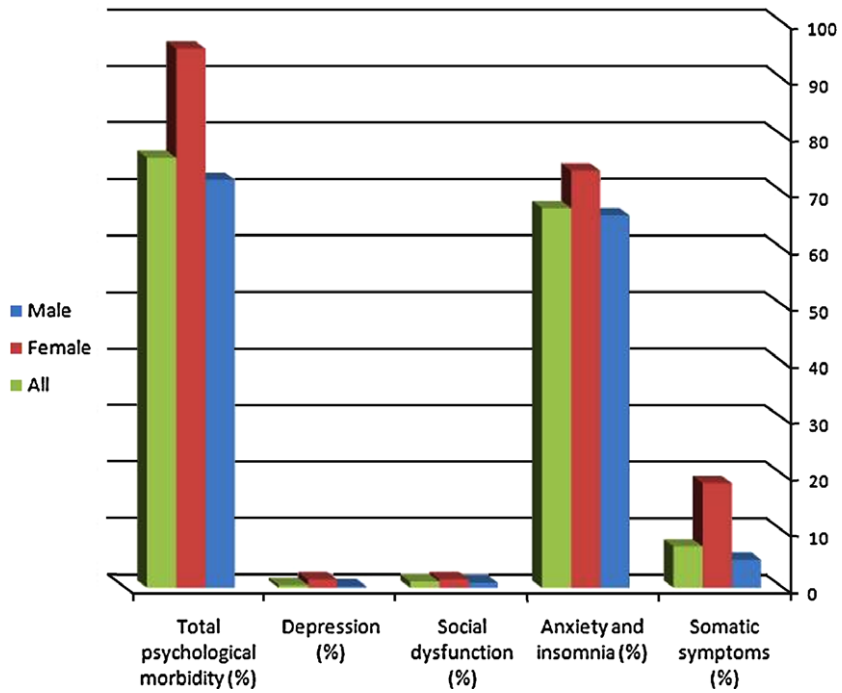

Fig. 1. Psychological morbidity in sued physicians.

4.4. Morbidity

This report documents the self-reported impact of the receipt of a grievance on a cohort of Tehran doctors. It raises concern about the impact of grievances on individual doctors and the profession.

Psychological morbidity is high at 76% which is much higher than Iranian general population and Iranian non-sued general practitioners or interns and medical students. Psychological morbidity in Iranian general population was identified 19% for adult cases[24,25], 35% for cases of Iranian non-sued general practitioners and 36% for interns or medical students.[26] There was a tendency in our study that those who regard the grievance as more critical were more probably to have a multiplied degree of psychiatric morbidity. There was small communal, work or family dysfunction recorded in the participants as a group.

In reviewing published literature, Charles et al. showed that thirty-nine per cent of sued physicians in Chicago had symptoms suggestive of 'major depression'. Twenty per cent of them had a symptom cluster thought to be suggestive of an 'adjustment disorder'. This included anger and four of eight other symptoms, including mood change, inner tension, frustration, irritability, insomnia, fatigue, gastrointestinal symptoms and headache.[6]

In a second related study, nearly one-quarter (23%) identified litigation as their most stressful life experience. These doctors experienced more physical and emotional symptoms than their colleagues who identified some other event (such as death of spouse or divorce) as being their most stressful life experience. Indeed, 45% of the former compared with 15% of the latter reported symptoms suggestive of major depression.[8]

Another study of sued and non-sued physicians in Southern USA, similarly found that malpractice litigation was a major life trauma. Stress symptoms in those being sued were highest during the first 2 years after the lawsuit, and later remained greater than non-sued physicians.[10]

Compared with studies in the developed countries; our study found that psychological morbidity in sued Iranian doctors is higher than doctors working elsewhere in the world. It may be in part due to high prevalence of psychological morbidity among Iranian general population and Iranian non-sued physicians. However, we must remember that there are considerable differences between legal process, educational and cultural background in our community and developed countries.

On the other hand, psychological morbidity in female sued physicians was significantly higher than male sued physicians. This may be in part due to sentimental and emotional encounter of women with such problems. However, it seems further studies must be done to clarify precise causes of this finding.

4.5. Limitations of the study

Although the answer rate was very good, there might have been self-reported bias. The authors had no control over the mail-out. Some participants got the questionnaire outside the specified time frames, and there might have been more grievances remained with the LMOCC than were included in the study. Additionally, the mail-out (occurring 2 weeks after informing of the grievance) was also a short period to catch longer-term morbidity associated with the grievances action. A follow up reevaluation would give a better idea, especially for the more prolonged grievance action.

5. Conclusions

Although a grievance or legal action is unusual in daily practice of doctors, but in today's medico-legal domain they face a continuous possible threat. This study showed that the threat of, or real, legal process can cause psychological, corporeal and behavioral practice changes. The protest or litigation process is usually a prolonged procedure and can be a chronic stressor.

As an initial study, the questionnaires seem to have suitable face and construct validity, and the technique is able to obtain a reasonable reply rate. Psychological morbidity and disability measurements indicate that the participants who work in clinical practice having a therapeutic relationship with patients were twice distressed than interns or non-sued doctors, although there was

a tendency that those who look at the grievance as more critical had greater psychiatric morbidity. There continues some tension in responses about the medico-legal domain. Finally, these results imply that those who accompany teaching conferences might have a reduced risk of many grievances.

There is a tendency to prevent of complaints built in the educational system in Iran. Ethical and legal issues are theoretical parts of the general and professional medicine curriculum, but it seems that our students must confront with specific ethical and legal questions and dilemmas for learning how to resolve ethical and legal problems. Consult with forensic medicine specialists, increase of educational meetings and using professional liability insurance systems for resolving legal disputes related to medical malpractice claims may reduce the risk of psychological impact of complaints and negligence suits on doctors.

Further studies, including clinical interviews and study of long-term impact, are needed to clarify the impact of medical malpractice suits on the sociological reality of medical practice.

Conflict of Interest Statement

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Ethical approval

None declared.

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